

ABSTRACT OF THE DISCLOSURE

There is provided a method of fabricating a MOS transistor using a total gate silicidation process. The method includes forming an insulated gate pattern on a semiconductor substrate. The insulated gate pattern includes a silicon pattern and a sacrificial layer pattern, which are sequentially stacked. Spacers covering sidewalls of the gate pattern are formed, and source/drain regions are formed by injecting impurity ions into the semiconductor substrate using the spacers and the gate pattern as ion injection masks. The silicon pattern is exposed by removing the sacrificial layer pattern on the semiconductor substrate having the source/drain regions. The exposed silicon pattern is fully converted into a gate silicide layer, and concurrently a source/drain silicide layer is selectively formed on the surface of the source/drain regions.

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